

REMARKS

The Examiner objected to Fig. 1 of the drawings because reference number 14 (which designates the resin conducting layer) and reference number 18 (which designates the resin retention structure) point to the same structure. The Examiner objected to Fig. 3 of the drawings for the same reason relative to reference numbers 104 and 108. This objection is respectfully traversed. As stated in the specification at Page 6, Lines 11-12, the "resin retention structure and the resin conducting layer may be identical so that the resin retention structure is formed by the resin conducting layer." Thus, it is believed that the use of the two reference numbers in this context is appropriate.

The Examiner rejected Claims 1, 3, and 21 under 35 U.S.C. 112, first paragraph, because the specification did not provide an enabling disclosure regarding the limitation "said resin conducting layer further providing a resin retention structure" or for the limitation "said resin conducting layer comprising a venting structure." The Examiner further stated that it was not clear from the specification and claims whether the resin conducting layer (1) is made up of a separate venting structure and a separate resin retention structure, or (2) functions to vent gases and to provide resin retention.

These rejections are respectfully traversed. At Page 5, Lines 4-5, the specification states that:

"resin conducting layer is porous and permeable to any interlaminar and intralaminar gases and air so that these gases can escape via this layer."

Also, at Page 5, Line 13 through Page 6, Line 2, the specification states that:

"in an embodiment of the invention, the surface material has a resin conducting layer which comprises suitable properties for retaining the resin onto the mold surface during processing of the material such that no de-wetting occurs. The resin is retained close to the surface due to the fine weave or the like structure of the material which absorbs and retains a high volume of surface resin material. This volume is higher than the volume of the resin material which is usually retained in conventional molding materials on or near the mold surface. The high surface resin loading prevents de-wetting of the mold surface. The resin retention structure may have a fine weave or the like structure, whereby the resin retention structure is adapted to reduce the tendency for the formation of surface irregularities."

In a preferred embodiment of the invention, the resin retention structure is in contact with the mold surface prior to processing of said surface material. During processing, the air inside the resin conducting layer and the air trapped between the surface material and the mold surface escapes. The surface resin material simultaneously advances through the surface material towards the mold surface to wet out the surface fabric. This ensures complete wetting of the mold surface and results in a cured molding with a high cosmetic quality surface finish. Processing of the material may further require a vacuum pressure.”

Thus, in the illustrated embodiment, the resin conducting layer functions to vent gases and to provide resin retention. However, this does not preclude the resin conducting layer being made up of a separate venting structure and a separate resin retention structure. Regardless, the specification is enabling for the language of Claims 1, 3, and 21.

The Examiner rejected Claims 1, 3, 16, and 21 under 35 U.S.C. 112, second paragraph, because it was unclear how the resin conducting layer provides a resin retention structure and it was not clear from the specification and claims whether the resin conducting layer (1) is made up of a separate venting structure and a separate resin retention structure, or (2) functions to vent gases and to provide resin retention. It is believed that the portions of the specification cited above address these issues.

The Examiner also rejected Claims 4 and 7 under 35 U.S.C. 112, second paragraph, as being indefinite. Such claims have been amended to address the informalities noted by the Examiner.

The Examiner rejected Claims 1-16, 21, and 22 under either 35 U.S.C. 102(b) or 103(a) in view of the Ness et al. reference. These rejections are respectfully traversed. The claimed invention is directed to a surface material that provides an improved cosmetic surface quality for a molding material relative to known surface materials, such as that shown in the Ness et al. reference (which is owned by the assignee of this invention). This superior result is obtained by providing a resin conducting layer that both (1) comprises a venting structure for venting gases during processing of the surface material and (2) provides a resin retention structure for retaining the surface resin material in contact with the mold surface during processing

of the surface material. Thus, a breathable interface is provided between the surfaces of the surface material and the molding tool, thus enabling air between the surface material and the molding tool to be evacuated. In addition, the surface resin material is maintained in contact with the mold surface during processing of the surface material.

The Ness et al. reference does not show or suggest this structure. Specifically, the Ness et al. reference does not show or suggest a resin conducting layer that both (1) comprises a venting structure for venting gases during processing of the surface material and (2) provides a resin retention structure for retaining the surface resin material in contact with the mold surface during processing of the surface material, as recited in independent Claims 1, 3, and 21. Similarly, the Ness et al. reference does not show or suggest a resin retention layer comprising a resin retention structure for both retaining the resin material into contact with the mold surface during processing of the surface material and reducing the tendency for the formation of surface irregularities during processing, as recited in independent Claim 22. Thus, it is believed that the claims are patentable over the Ness et al. reference.

Respectfully submitted,



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